

Title (en)  
MANGANESE-ALUMINUM-PHOSPHORUS-SILICON-OXIDE MOLECULAR SIEVES

Publication  
**EP 0161490 B1 19880525 (EN)**

Application  
**EP 85104390 A 19850411**

Priority  
US 60017584 A 19840413

Abstract (en)  
[origin: EP0161490A2] Crystalline molecular sieves having three-dimensional microporous framework structures of  $MnO_{2\cdot}$ ,  $AlO_{2\cdot}$ ,  $SiO_z$  and  $PO_{2\cdot}$  tetrahedral oxide units are disclosed. These molecular sieves have an empirical chemical composition on an anhydrous basis expressed by the formula: wherein "R" represents at least one organic templating agent present in the intracrystalline pore system; "m" represents the molar amount of "R" present per mole of  $(Mn_w Al_x P_y Si_z)O_{2\cdot}$ ; and "w", "x", "y" and "z" represent the mole fractions of manganese, aluminum, phosphorous and silicon, respectively, present as tetrahedral oxides. Their use as adsorbents, catalysts, etc. is also disclosed.

IPC 1-7  
**C01B 33/28**; B01J 29/28; C10G 11/05; C10G 49/08; C07C 5/02; C07C 2/54; C10G 35/095; C07C 5/22; C07C 5/41

IPC 8 full level  
**C10G 35/095** (2006.01); **B01J 20/18** (2006.01); **B01J 29/00** (2006.01); **B01J 29/85** (2006.01); **C01B 37/08** (2006.01); **C07C 2/12** (2006.01); **C07C 2/54** (2006.01); **C07C 5/02** (2006.01); **C07C 5/22** (2006.01); **C07C 5/27** (2006.01); **C07C 5/41** (2006.01); **C10G 49/08** (2006.01)

CPC (source: EP US)  
**B01J 29/85** (2013.01 - EP US); **C01B 37/08** (2013.01 - EP US); **C07C 2/12** (2013.01 - EP US); **C07C 2/54** (2013.01 - EP US); **C07C 5/02** (2013.01 - EP US); **C07C 5/224** (2013.01 - EP US); **C07C 5/2716** (2013.01 - EP US); **C07C 5/41** (2013.01 - EP US); **C07C 2529/84** (2013.01 - EP US)

Cited by  
EP0249914A1; US5147525A; EP0242616A1; EP0640576A1; US5141728A; US5147627A; EP0249913A1; US4922050A; US4923594A; US4880611A; US4803185A; US5141729A; US4861739A; EP0187308A1; US5169614A; US4826804A; US4814316A; US5326464A; DE4139552A1; EP0545179A1; US5396015A; US5147626A; WO8603139A1; WO9311091A1; WO8603770A1; WO8603771A1; EP2325143A2; US8409546B2; WO2011064186A1; US8883119B2; US9895684B2

Designated contracting state (EPC)  
BE DE FR GB IT NL

DOCDB simple family (publication)  
**EP 0161490 A2 19851121**; **EP 0161490 A3 19851218**; **EP 0161490 B1 19880525**; CA 1246530 A 19881213; DE 3562890 D1 19880630; JP S60231413 A 19851118; US 4686092 A 19870811

DOCDB simple family (application)  
**EP 85104390 A 19850411**; CA 477828 A 19850328; DE 3562890 T 19850411; JP 7691485 A 19850412; US 60017584 A 19840413